

19 March 1970

MEMORANDUM FOR: Chief, Automated Information Division, PSG, NPIC  
THROUGH : Chief, Applied Mathematics Branch, AID, PSG, NPIC  
SUBJECT : Core Savings in New Version of Real Time Mensuration Program

1. On 18 March 1970 the Applied Mathematics Branch, AID, introduced a new version of the Real Time Mensuration Program. This new version contains all the required changes needed for stereo measuring in a real time/batch environment as described in the AMB briefing of 30 January 1970.

2. This version of the Real Time Mensuration Program contains addition modifications which are of little interest to the users of the program but are of great concern to individuals involved in machine usage. To be specific, AMB has successfully streamlined the RTMP with a result of fewer segment loads per run and a noticeable savings in the memory required by the program.

3. Although it is difficult to relate the decreased number of segment loads to an actual savings in money at this time, the savings in memory can be directly related to the cost of operating our machines as follows:

Old version of RTMP used 15,360 (decimal) words of memory

New version of RTMP uses 11,968

Actual savings of memory 3,392 words

Cost of 65K of memory

Corresponding cost of  
3,392 words

Savings per year




25X1

Declass Review by  
NIMA/DOD

SUBJECT: Core Savings in New Version of Real Time Mensuration Program

4. Although the significance of this savings may not be immediately evident, it should be noted that the RTMP is core resident and any decrease in size of this program means addition available memory for batch programs attempting to load. AMB feels that this savings will benefit all users as the total workload of our computer system increases.

  
Applied Mathematics Branch, AID, PSG  
NPIC

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Distribution:

Orig - NPIC/PSG/AID  
2 - NPIC/PSG/AID/AMB

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16 March 1970

MEMORANDUM FOR: Chief, Automated Information Division, PSG/NPIC

SUBJECT: Reduction in Core Residency Requirement for Analytic  
Real-Time Program, ART

25X1 1. A rather substantial size reduction in ART has recently been accomplished. This new version will shortly be implemented and results in releasing approximately 2,800 decimal core locations for use by application programs. [ ] is primarily responsible for this savings.

2. I caution that the reduction may only be temporary as it is achieved by "eliminating" activities specified, (3) ART secondary, from the program. These, or some of at least, activities may well return in the not too distant future.

3. There is no doubt in my mind that significant core reductions in all (most) software subsystems can be achieved within the Division. But the problem of human resource application on a task such as this is for the most part, at least at this time, not easily solved.

[ ]  
Chief, Systems Programming Branch, AID/PSG

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Attachment:

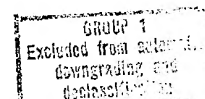
ART Core Requirements

Distribution:

Orig - Addressee/w/attach

2 - SPB chrono/w/attach

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ART CORE REQUIREMENTS

PROGRAM SIZE:	ART69C 41747 <sub>8</sub>	ART70 34621 <sub>8</sub>
TOTAL CORE REQUIREMENT:	44100 <sub>8</sub>	36500 <sub>8</sub>
DIFFERENCE IN CORE REQUIREMENT:	5400 <sub>8</sub>	

ART70 consists of two levels of segmentation. The first level of segmentation contains the control segment and routines common to the segments in level 2. The second level of segmentation consists of 3 independent segments:

(1) ART Recovery & Initialization

- a. Recovers output queue if necessary
- b. Initializes all Analytic Remote Stations
- c. Initializes all files & queuing packets
- d. Registers itself with executive

(2) ART Primary

- a. Input Activity
- b. Queuing activity
- c. Output activity
- d. Unsolicited entry and time-out activity
- e. ~~600~~ output activity
- f. Sector/Block release activity (abortion of output)

(3) ART Secondary - Unused Code from all above Activities

- a. COINS I/O Routines
  - b. Basic I/O Handler
  - c. Master Send Activity
  - d. Master Receive Activity
  - e. Associated Buffers for a-d above
- } Slave Computer  
} Link

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GROUP 1  
Excluded from automatic  
downgrading and  
declassification

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